

SHEET 34 AMENDT

What is claimed is:

1. A method for moistening a web of paper or paperboard, the method comprising the step of forming a steam atmosphere into a steam blow cavity open toward the web (1) by way of feeding steam into the cavity, **characterized** applying a spray of liquid heated to a temperature higher than the ambient temperature from at least one nozzle onto the web in the steam atmosphere.
2. The method of claim 1, **characterized** in that the temperature of the liquid applied as a spray is particularly advantageously in the range of 70 – 95 °C.
3. The method of claim 1, **characterized** in that the temperature of the liquid applied as a spray is in the range of 30 – 99 °C.
4. The method of claim 1, 2 or 3, **characterized** in that the steam and the liquid required for establishing the steam atmosphere are injected from the same nozzle.
5. The method of claim 1, 2 or 3, **characterized** in that the steam and the liquid required for establishing the steam atmosphere are injected from separate nozzles.
6. The method of any one of foregoing claims, **characterized** in that into the cavity open toward the web is formed an atmosphere of saturated steam.
7. The method of any one of foregoing claims, **characterized** in that the steam is water vapor and the liquid is water.
8. The method of any one of foregoing claims, **characterized** in that the temperature of the liquid being applied as a spray is controlled in the cross-machine (CD) direction.
9. The method of any one of foregoing claims, **characterized** in that the amount of

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the liquid being applied as a spray is controlled in the cross-machine (CD) direction.

10. The method of any one of foregoing claims 8 - 9, **characterized** in that the temperature or flow rate of the liquid being applied as a spray is adjusted in the 5 cross-machine (CD) direction with the help of a control system and measurements performed on the web.

11. An assembly for moistening a web of paper or paperboard, the assembly comprising a steam blow cavity adapted to open toward a moving web (1) and at least 10 one nozzle (5, 6, 7) for feeding at least steam into the steam blow cavity so as to form a steam atmosphere, **characterized** by at least one nozzle (5, 6, 7) for applying a spray of a liquid heated to a temperature higher than the ambient temperature onto the web (1) in the steam atmosphere.

15 12. The assembly of claim 11, **characterized** in that that at least one of the nozzles is a dual-channel nozzle (FIG. 4) capable of injecting both steam and liquid.

13. The assembly of claim 11, **characterized** by the use of separate nozzles for 20 injecting steam and liquid.

14. The assembly of any one of claims 11 - 13, **characterized** by means adapted to the nozzles for heating the injected therefrom and controlling the temperature of the injected liquid.

25 15. The assembly of any one of claims 11 - 14, **characterized** in that the assembly is located on the dryer section, calender or therebetween of a paper/paperboard manufacturing line.